A159.E1490
JACC Maarch 9, 2010
Volume 55, issue 10A

VASCULAR DISEASE

COMPARING THE EFFICACY AND OUTCOMES OF VARIOUS STENTS USED IN ILIAC ARTERY REVASCULARIZATION-A META-ANALYSIS

ACC Poster Contributions
Georgia World Congress Center, Hall B5
Sunday, March 14, 2010, 9:30 a.m.-10:30 a.m.

Session Title: Endovascular Therapy
Abstract Category: Endovascular Therapy
Presentation Number: 1059-374

Authors: *Ankur Sethi, Amol Bahekar, Janos Molnar, Rohit Arora, Rosalind Franklin University,Chicago Medical School, North Chicago, IL*

Background: The choice of stent used in iliac artery revascularization depends upon the morphology & location of the lesion but otherwise evidence to support particular stent design is insufficient. Aim of this meta-analysis was to compare the efficacy and outcomes of various stents used in iliac artery revascularization.

Methods: Systematic literature search using key words "iliac artery stent" revealed 38 studies reporting outcomes for a single stent in iliac artery revascularization. Data was extracted about following outcomes, major adverse events (MAE), and change in Ankle: Brachial Index (ABI) post stent and primary patency rates. A fixed-effect and random effect model was used to calculate endpoints for homogenous and heterogeneous outcomes respectively.

Results: Wallstent was associated with lower MAE as compared to Strecker stent (RR = 0.62, p = 0.003) and Palmaz stent (RR = 0.54, p = 0.008) but no different than Nitinol stent (RR=1.175, p= 0.412). Wallstent had greater decrease in post stent ABI compared to Palmaz (0.036, p < 0.001) and Strecker (0.061, p < 0.001) but no difference compared to Nitinol (0.002, p= 0.267). Primary patency of Wallstent was found to lower as compared to Nitinol (RR = 0.89 p < 0.001) and Palmaz (RR = 0.93, p = 0.002) at 1 yr.

Conclusion: Current analysis of available studies suggest newer stents like Wallstent and Nitinol might be slightly better on endpoints like adverse events and ABI improvement. Nitinol stent may provide better patency rates then Wallstent at 1 year.